



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FEB 29 2012

ENFORCEMENT ACTION MEMORANDUM

SUBJECT: Request for a Removal Action at the High Point Vermiculite Site – GAO 013
6228 Prospect Street, High Point, Randolph County, North Carolina 27263

FROM: Terry Stilman, On-Scene Coordinator
Emergency Response and Removal Branch

THRU: Shane Hitchcock, Chief
Emergency Response and Removal Branch

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed enforcement-lead time-critical removal action described herein for the High Point Vermiculite Site - GAO 013 (the Site) located in High Point, Randolph County, North Carolina. The release of a hazardous substance at the Site poses a threat to public health and the environment pursuant to Section 104 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions.

As a result of Site conditions, CERCLA removal actions are necessary. W.R. Grace is the former operator of the Site. This removal action is anticipated to be enforcement-lead pursuant to an Administrative Order on Consent (AOC) with W.R. Grace.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID: NCN000410400
Site ID Number: B408
Removal Category: Time-Critical Removal

A. Site Description

The Site is located at 6228 Prospect Street, High Point, Randolph County, North Carolina 27263. Vermiculite ore was reportedly processed at the Site. Currently the Site is occupied by an existing business, Southern Custom Shutters, operating within the main building. Southern Custom Shutters manufactures wood products at this Site. The Site consists of one large (main) building, one or more smaller out-buildings, and a vermiculite waste pile at the back of the Site.

The Site is partially paved. The remainder of the Site is grass-covered, and wooded sections occupy the northern, eastern, and southern margins of the Site property. A gravel driveway connects the western entrance area of the property to the rear portion to the east.

A removal site evaluation (RSE) has been conducted at the Site by the U.S. Environmental Protection Agency in response to an agency-wide initiative to investigate vermiculite facilities that received vermiculite ore from the W.R. Grace vermiculite mine in Libby, Montana. The Site, also referenced as GAO 013, was the former location of a vermiculite expansion (or exfoliation) plant. According to W.R. Grace and other sources, W.R. Grace leased the property from Ervin R. Davis to operate an expansion plant from 1955 until 1989. W.R. Grace shipping records indicate 3,083 tons of vermiculite concentrate from the W.R. Grace vermiculite mine in Libby, Montana were shipped to the GAO 013 Site in Highpoint, Randolph County, North Carolina.

1. Removal Site Evaluation

On November 30 and December 1, 2009, the EPA and the EPA's Superfund Technical Assessment and Response Team (START) contractor conducted aggressive air sampling, activity-based sampling (ABS), and bulk material sampling at the GAO 013 Site. A follow-up site visit was also conducted on March 21, 2011, during which additional bulk samples were collected. The objective of the field effort was to evaluate potential human exposure risk from disturbance of materials potentially contaminated with asbestos. ABS was conducted to evaluate human exposure potential to asbestos released to the air during activities that may take place at the Site such as raking and sweeping. Sampling at the Site occurred during or in association with the various disturbance-type activities and included collection of the following types of samples: indoor aggressive air samples, ABS air samples and bulk material samples. Air sampling at the Site included collection of background and quality control air samples. Bulk material samples were collected initially in association with the ABS rounds and in one other selected locations based on historical information.

Air sampling was conducted inside the main building at the GAO 013 site on November 30, 2009. Nine sets of collocated high flow rate and low flow rate air samples and a field duplicate sample were placed inside the building. One outdoor, perimeter downwind air sample was also set up at a location downwind of the main building during air sampling. Of the 11 indoor air samples that were analyzed, the results for nine of the samples show nondetects for all Phase Contrast Microscopy Equivalent (PCME) structures. The results for the remaining two samples show positive PCME results and included Libby amphibole, but the maximum detected concentration within the building was below the OSHA Permissible Exposure Limit for occupational standards.

Two rounds of outdoor ABS air sampling were conducted at the Site on December 1, 2009. One round involved raking as the activity, and the other round involved a combination of both raking and sweeping. Each round of ABS air sampling was conducted for a period of 120 minutes. A composite, soil sample was collected in each of the ABS areas. An additional bulk material sample was collected on December 1, 2009, from a location within what may have been a former railroad spur adjacent to the northern side of the main building at the Site. The results for Round 1, raking, were reported as follows; the two ABS backpack air samples that were analyzed show

nondetects for all PCME structures listed. The results for all five of the ABS perimeter upwind and downwind air samples that were analyzed show nondetects for all PCME structures listed. The results for the bulk material sample were nondetect for asbestos. The results for Round 2, raking and sweeping, were reported as follows; the ABS air sample analyzed show nondetects for all PCME structures listed, of the four ABS perimeter upwind and downwind air samples that were analyzed. The results for the one air sample designated as upwind and for two of the air samples designated as downwind show nondetects for all PCME structures listed. The results for the one remaining ABS perimeter downwind air sample that was analyzed showed positive PCME results for total asbestos ($9.7\text{E-}04$ s/cc), total amphibole ($9.7\text{E-}04$ s/cc), and actinolite ($9.7\text{E-}04$ s/cc). The results for the bulk material sample indicate that asbestos was not detected.

One additional bulk material sample was collected on December 1, 2009, from a location within what may have been a former railroad spur adjacent to the northern side of the main building at the Site. The results for the additional bulk material sample indicate that asbestos was not detected.

A follow-up site visit by the EPA and START was made on March 21, 2011, with the purpose of inspecting the GAO 013 Site to determine if the November and December 2009 sampling event had adequately characterized all areas at the Site. After viewing the Site, the EPA On-Scene Coordinator (OSC) concluded that the activities of the November and December 2009 sampling event adequately addressed site conditions, with the exception of mounds or piles located east of the main building and on the southeastern portion of the Site property. The piles were in a wooded area and included materials such as building debris and asphalt. START collected two additional bulk material samples from one of the observed piles located along the southeastern property line. During sampling, the visible presence of vermiculite was found. The analytical results for the two bulk material samples collected in March 2011 show that asbestos was detected. The results for the two samples analyzed indicate that 12 percent asbestos, identified as tremolite, was detected in one and indicate that 5 percent asbestos, identified as tremolite, was detected in the second.

2. Physical Location

The Site is located at 6228 Prospect Street, High Point, Randolph County, North Carolina 27263. The geographic coordinates for the Site are latitude 35.914828 degrees north and longitude 80.029737 degrees west. The Site is located about three miles south-southwest of downtown High Point, Randolph County, North Carolina, in a mostly developed urban area of mixed industrial, commercial, and residential use. The Site is currently unfenced, and residential areas exist nearby. The nearest residence borders the Site property to the south. The Site is bordered to the north by on/off ramps accessing U.S. highway 70 and interstate highway business I-85; to the east the Site is bordered by a mostly undeveloped and wooded area. The nearest church is located less than 1,000 feet west-northwest of the Site, and the nearest school, Childcare Network, is located about a mile southwest of the Site. According to 2000 U.S. Census Population and Housing Summary data the Site is located in a low income area.

The Site consists of one large (main) building, one smaller out-building and the parcel is partially paved with the remainder of the Site grass-covered wooded. A gravel driveway

connects the western entrance area of the property to the rear portion to the east. What may have been a former railroad spur runs along the northern perimeter of the Site's main building. The main building has an open porch or loading dock at its west end; the interior of the building is partitioned into offices, production areas, and storage areas, and includes two loft spaces.

3. Site Characteristics

The Site occupies approximately 2.65 acres; the former expansion building is still on-site and is occupied by a wood products manufacturer. The western end of the property is located along Prospect Street and serves as the Site entrance, parking lot and gravel drive. The east end of the property has been filled to make the property level and making the eastern end of the property elevated above the surrounding properties. There are berms or piles of soil and building debris lining the southeastern and eastern property bounds. Vermiculite and asbestos have been detected in the piles. The Site is not fenced and trees and vegetation cover the soil and debris piles. Two bulk soil samples were collected from one pile located on the southeast section of the Site. The results for the two samples analyzed indicate that 12 percent asbestos and 5 percent asbestos identified as tremolite was detected. Two residential properties are adjacent to the soil piles where bulk samples were collected.

Figures showing the Site Location and Layout and an Additional Bulk Sampling figure are included in Attachments 2. Attachment 3 includes photographs of the soil piles and bulk materials collected during the Site visit conducted on March 21, 2011.

Based on information from the EPA and W.R. Grace files, the Site is the location of a former vermiculite processing plant that operated between 1955 and 1989. W.R. Grace shipping records indicate that 3,083 tons of vermiculite concentrate from the W.R. Grace vermiculite mine in Libby, Montana were shipped to the GAO 013 site in High Point, Randolph County, North Carolina.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Asbestos is a hazardous substance as defined by CERCLA 101 (14) and listed in the Title 40 of the Code of Federal Regulations (CFR), Section 302.4. There has been a release of asbestos at the Site.

The EPA's Framework for Investigating Asbestos-Contaminated Superfund Sites (EPA 2008) provides a step-wise process for evaluating risks associated with asbestos. GAO 013, High Point, Randolph County, North Carolina is known to have used vermiculite concentrate from Libby, Montana. The vermiculite concentrate is known to be contaminated with a distinct form of asbestos. Though air samples collected during the Site investigation contain traces of asbestos, they are not considered to exceed applicable screening levels, but the identification of the "Libby amphibole" form of asbestos in two bulk soil samples at levels of 12 percent and 5 percent pose a potential health risk. The samples were collected from a soil pile located on the southern boundary of the property which is located adjacent to residential properties. Identification of the Libby amphibole in environmental samples and the visual presence of vermiculite beneath the land surface in the debris piles is evidence that a release has occurred.

5. National Priorities List (NPL) Status

The Site is not on the NPL, and it is unlikely to be placed on the NPL in the future.

6. Maps, pictures, and other graphic representations

Figures and photographs are attached to this Action Memorandum.

B. Other Actions to Date

1. Previous Actions

Prior to Southern Custom Shutters beginning their manufacturing process, file material indicates that the EPA conducted a Site sampling inspection at the Site on December 12, 2000, and a private party demolition and clean-up of the vermiculite plant manufacturing equipment was conducted at the Site.

Other than the activities mentioned above, no other government or private actions have been taken to investigate or mitigate the threats posed by the Site.

2. Current Actions

There are no current actions being taken by any party to address the threats posed by the Site.

C. State and Local Authorities' Role

1. State and Local Actions to Date

The EPA continues to coordinate activities with the State of North Carolina Department of Environment and Natural Resources (NCDENR). NCDENR leads oversight and coordination at mining Sites, while the EPA has the lead for vermiculite processing facilities associated with the Libby, Montana mine. NCDENR personnel continue to assist the EPA with the ongoing investigation of the Site.

2. Potential for Continued State and Local Response

It is not anticipated that NCDENR will perform any further response activities at the Site. The Emergency Response and Removal Branch (ERRB) will continue to coordinate with state and local agencies during the removal activities.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Asbestos present in Site soils pose the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP):

Section 300.415 (b)(2)(i) Actual or potential exposure to nearby human populations, or the food chain from hazardous substances pollutants or contaminants; A review of the EPA analytical data and the Human Health Risk Assessment for the Vermiculite Exfoliation Plant GAO 013, High Point, North Carolina (September 2011) was conducted by the EPA's Technical Service Section (TSS). Even though ABS air samples were not collected in the area of the soil piles, the two soil samples analytical results were determined to contain asbestos at high levels - 12 percent asbestos identified as tremolite and 5 percent asbestos identified as tremolite. The soil piles were located along the southern unfenced property line where there are three adjacent residential properties.

The relationship between the concentration of asbestos in a source material (soil/asbestos-containing vermiculite) and the concentration of fibers in air that result when the source is disturbed is very complex and depends on a broad range of variables. No method has been found to predict the concentration of asbestos in air reliably as it relates to a measured concentration of asbestos in the source material. A detectable concentration of asbestos in source material may, when disturbed, result in a high concentration of airborne asbestos that could pose a health risk.

Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants or contaminants in the soils largely at or near the surface, that may migrate; The analytical results of the two soil samples, G013-BS-49 and G013-BS-50, collected on March 21, 2011, indicated that 12 percent and 5 percent, respectively, was detected as asbestos and identified as tremolite. These soil samples were collected at the surface of the pile. If the soil piles were to be graded or the vegetation in the area was removed it would create the potential for migration to off-site locations.

Section 300.415 (b)(2)(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; Periodic rains and drought conditions may contribute to the potential for migration of asbestos-containing soils. Soil erosion during rain events followed by wind action during particularly during dry conditions, can lead to migration of fine asbestos fibers from contaminated surface soil.

Section 300.415 (b)(2)(vii) The availability of other appropriate federal or state response mechanisms to respond to the release; NCDENR has indicated that the State lacks available funds to implement a cleanup at the Site in a timely manner. If the EPA Region 4 does not respond to this release, no other federal agency, state or local government has the capacity to respond in a time-critical manner.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The following actions will be implemented by W.R. Grace under an AOC:

- a. Coordinate with the OSC to assess the layout of Site and determine required Site activities, equipment, personnel and logistics, and develop a Removal Action Work Plan that details plans for the excavation.
- b. Determine the extent of asbestos contaminated soil, which includes the existing debris pile and properties adjacent to the debris pile. The debris piles are estimated to be approximately 175 feet by 50 feet.
- c. Excavate and remove areas of asbestos contaminated soil and debris with confirmatory sampling. Depending on the results of the extent of contamination survey, this activity may include removal of additional contaminated soils along the back edge of the property and on adjacent properties.
- d. Backfill excavated areas with clean fill material, as necessary. In areas where asbestos is present at depths greater than two feet below the natural grade, place an appropriate warning barrier, cover such areas with clean soil to prevent direct contact with contaminated soils and coordinate with the property owner a plan for post-removal site control.
- e. Dispose of contaminated soils at an approved facility.
- f. Suppress dust and control erosion during the removal action.
- g. Monitor and sample as necessary personal and ambient air during the removal activities.
- h. Restore disturbed areas in a manner that prevents sediment runoff onto adjacent properties and is consistent with future land-use. Restoration shall be coordinated with the landowners.

2. Contribution to remedial performance

The proposed removal action is warranted to address the threats discussed in Section III, which meet the NCP Section 300.415 (b) (2) removal criteria. The removal action contemplated in this Action Memorandum would be consistent with any remedial action.

3. Engineering Evaluation/Cost Analysis (EE/CA)

This proposed action is time-critical and does not require an EE/CA.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

On-Site removal actions conducted under CERCLA are required to attain ARARs to the extent practicable, considering the exigencies of the situation. Off-site removal activities need only comply with all applicable federal and state laws. This cleanup is being conducted as a time-critical removal action.

Federal ARARs

The following has been identified as a potential Federal ARAR, EPA's NESHAP regulation, 40 CFR Part 61, which discusses reducing off-site migration of asbestos during clean-up activities.

State ARARs

A letter was received from the State of North Carolina on November 17, 2011, indicating potential State ARARs. Based on the OSC's review, the following have been identified as potential State ARARs with regard to control of off-site migration of asbestos and sediment control during the removal action:

- Surface Water and Wetland Quality (1 5A NCAC Subchapter 2B.0 100 and .0200)
- Air Quality (15A NCAC Subchapter 2D and 24)
- Water Quality (1 5A NCAC 2B)
- Erosion and Sedimentation (15A NCAC 4B)
- Asbestos Hazard Management (1 OA NCAC 4 1 C.0600)
- Sedimentation Pollution Control Act (NCGS Chapter 1 13A, Article 4)

The OSC will continue to coordinate with State officials to identify State ARARs and will evaluate such ARARs in accordance with the NCP.

All waste transferred off-site will also comply with the CERCLA Off-Site Rule (40 CFR 300.440).

5. Project schedule

The EPA is currently negotiating with W.R. Grace to undertake the removal action as outlined in this memorandum. The project schedule will be incorporated in the work plan submitted to the EPA for approval under the AOC.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this response action is significantly delayed or not taken, the potential for disturbances that result in additional release will continue, increasing the potential for migration of asbestos and increasing the possibility of exposure to the public and the environment.

VII. OUTSTANDING POLICY ISSUES

Asbestos removal actions for "Libby amphibole" type material have been conducted by the EPA at other locations around the nation. This removal action does not set a precedent, but is considered nationally significant based on the EPA's policy regarding CERCLA actions at Asbestos sites. This action is part of an agency-wide initiative to investigate vermiculite facilities that received vermiculite ore from the W.R. Grace vermiculite mine in Libby, Montana. Because of the potentially broad impact of vermiculite ore with high levels of amphibole asbestos mined from the Libby, Montana deposits, the EPA Region 4 is coordinating with the EPA Headquarters and other Regions to assure a consistent approach to

vermiculite issues. There are no outstanding policy issues related to the proposed Removal Actions at this Site.

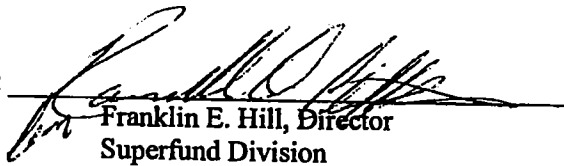
VIII. ENFORCEMENT

The EPA anticipates that W.R. Grace will both fund and conduct the removal action. W.R. Grace is the former operator of the Site. The EPA has not identified any other potentially responsible party (PRP), and it is expected that W.R. Grace will be the sole PRP for this Site. The EPA and W.R. Grace are currently negotiating the terms of the AOC for conducting the removal. Should negotiations with W.R. Grace fail to result in an AOC, the EPA may decide to take a fund-lead removal action. See Attachment, "Enforcement Confidential Addendum," for more detailed information.

IX. RECOMMENDATION

This decision document represents the selected removal action for the GAO 013 Vermiculite Site located in High Point, Randolph County, North Carolina developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan (NCP). The document is based on the Administrative Record for the Site. Conditions at the Site meet the NCP Section 300.415 (b) criteria for a time-critical removal action.

APPROVED: _____


Franklin E. Hill, Director
Superfund Division

DATE: _____

2/29/12

DISAPPROVED: _____

Franklin E. Hill, Director
Superfund Division

DATE: _____

Attachments

Appendix B

Cost Summary

Report Date: 01/13/2012

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IFMS Reconciliation Pending

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Narrative Cost Summary

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

1. The United States Environmental Protection Agency has incurred at least \$9,564.92 for Regional Payroll Costs.
2. The United States Environmental Protection Agency has incurred at least \$715.10 for Regional Travel Costs.
3. The United States Environmental Protection Agency has incurred costs of at least \$1,550.00 for OTHER EXPENDITURES contract expenditures. The total represents the amount spent under the EMSL ANALYTICAL INC. contract.
4. The United States Environmental Protection Agency has incurred costs of at least \$70,366.71 for SUPERFUND TECHNICAL ASSISTANCE RESPONSE TEAM (START) contract expenditures. The total represents the amount spent under the TETRA TECH EM INC. contract.
5. The United States Environmental Protection Agency has incurred costs of at least \$11,316.53 for Miscellaneous Expenses.
6. The United States Environmental Protection Agency has incurred at least \$38,312.40 for Indirect Costs.

Total Site Costs:

\$131,825.66

Report Date: 01/13/2012

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IFMS Reconciliation Pending

Itemized Cost Summary

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

REGIONAL PAYROLL COSTS	\$9,564.92
REGIONAL TRAVEL COSTS	\$715.10
OTHER EXPENDITURES	
EMSL ANALYTICAL INC. (0R0429NTSA)	\$1,550.00
SUPERFUND TECHNICAL ASSISTANCE RESPONSE TEAM (START)	
TETRA TECH EM INC. (EPW05054)	\$70,366.71
MISCELLANEOUS COSTS (MIS)	\$11,316.53
EPA INDIRECT COSTS	\$38,312.40
Total Site Costs:	\$131,825.66

Report Date: 01/13/2012

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IFMS Reconciliation Pending

Regional Payroll Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Hours</u>	<u>Payroll Costs</u>
CERON, LEONARDO	2010	05	28.00	1,441.46
ENVIRONMENTAL SCIENTIST				
			28.00	\$1,441.46
FREDERICK, TIMOTHY A.	2011	26	9.00	549.99
ENVIRONMENTAL SCIENTIST	2012	02	6.00	367.21
			15.00	\$917.20
HARPER, GREGORY	2011	25	28.00	1,336.22
Industrial Hygienist (OSC)		26	24.00	1,145.35
	2012	02	4.00	191.17
		03	12.00	573.49
		04	16.00	764.66
		05	12.00	571.96
		06	4.00	191.17
		07	4.00	191.10
			104.00	\$4,965.12
JONES, SYLVIA K.	2011	18	0.25	15.42
ENVIRONMENTAL SCIENTIST				
			0.25	\$15.42
STILMAN, TERRY	2011	26	17.00	1,299.32
ENVIRONMENTAL SCIENTIST				
			17.00	\$1,299.32
TURNER, NARDINA	2010	18	0.50	32.84
ENVIRONMENTAL SCIENTIST		21	0.25	16.37
		23	0.25	16.78
		24	0.25	16.41
		26	0.25	16.40
	2011	07	1.25	82.43
		08	0.25	16.57
		09	1.00	66.24
		10	0.75	49.67
		11	0.50	33.12
		12	0.50	33.11
		13	0.50	33.11

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Regional Payroll Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Hours</u>	<u>Payroll Costs</u>
TURNER, NARDINA	2011	14	3.25	215.26
		15	2.00	132.47
		16	0.50	33.11
		17	0.25	16.57
		23	0.25	16.57
		24	0.75	49.69
		25	0.50	33.11
		26	0.25	16.57
			<u>14.00</u>	<u>\$926.40</u>
Total Regional Payroll Costs			<u>178.25</u>	<u>\$9,564.92</u>

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Headquarters Payroll Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Hours</u>	<u>Payroll Costs</u>
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Regional Travel Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Traveler/Vendor Name</u>	<u>Travel Number</u>	<u>Treasury Schedule</u>	<u>Treasury Schedule Date</u>	<u>Travel Costs</u>
BANK ONE	0Q1DOS	ACHC09355	12/23/2009	372.36
				<u>\$372.36</u>
HARPER, GREGORY Industrial Hygienist (OSC)	0RZ891	ACHA11264	09/23/2011	170.24
				<u>\$170.24</u>
STILMAN, TERRY ENVIRONMENTAL SCIENTIST	0RSUGI	ACHA11264	09/23/2011	172.50
				<u>\$172.50</u>
Total Regional Travel Costs				<u><u>\$715.10</u></u>

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Headquarters Travel Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Traveler/Vendor Name</u>	<u>Travel Number</u>	<u>Treasury Schedule</u>	<u>Treasury Schedule Date</u>	<u>Travel Costs</u>
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IFMS Reconciliation Pending

Contract Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

OTHER EXPENDITURES

Contractor Name: EMSL ANALYTICAL INC.

EPA Contract Number: 0R0429NTSA

Project Officer(s):

Dates of Service: From: To:

Summary of Service:

Total Costs: \$1,550.00

<u>Voucher Number</u>	<u>Voucher Date</u>	<u>Voucher Amount</u>	<u>Treasury Schedule Number and Date</u>	<u>Site Amount</u>
044542	07/08/2010	0.00	K2900 07/08/2010	1,550.00
			Total:	<u><u>\$1,550.00</u></u>

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Contract Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

SUPERFUND TECHNICAL ASSISTANCE RESPONSE TEAM (START)

Contractor Name: TETRA TECH EM INC.

EPA Contract Number: EPW05054

Delivery Order Information	<u>DO #</u>	<u>Start Date</u>	<u>End Date</u>
	3	09/26/2009	09/30/2011

Project Officer(s): JONES, SYLVIA

Dates of Service: From: 09/26/2009 To: 09/30/2011

Summary of Service: TECHNICAL ASSISTANT TEAM PROP-SUB(REDI)

Total Costs: \$70,366.71

<u>Voucher Number</u>	<u>Voucher Date</u>	<u>Voucher Amount</u>	<u>Treasury Schedule Number and Date</u>	<u>Site Amount</u>	<u>Annual Allocation</u>
T3-06-BY-44	10/28/2009	67,898.81	R0215 12/14/2009	1,322.09	90.62
T3-06-BY-45	11/25/2009	94,648.87	R0307 01/12/2010	7,589.25	520.18
T3-06-BY-46	12/30/2009	84,988.60	R0417 02/17/2010	21,291.51	1,459.37
T3-06-BY-47	01/27/2010	113,025.07	R0491 03/16/2010	8,069.97	553.13
T3-06-BY-48	02/24/2010	131,134.43	R0574 04/09/2010	1,492.65	102.31
T3-06-BY-49	03/31/2010	178,349.95	R0689 05/14/2010	1,538.67	105.46
T3-06-BY-50	04/28/2010	122,169.31	R0795 06/18/2010	1,014.21	69.52
T3-06-BY-52	06/30/2010	168,384.95	R0997 08/19/2010	614.20	42.10
T3-06-BY-53	07/28/2010	42,261.62	R0A81 09/14/2010	703.51	48.22
T3-06-BY-54	09/01/2010	89,610.68	R1066 10/21/2010	2,536.68	173.87
T3-06-BY-55	10/06/2010	104,167.58	R1154 11/22/2010	2,112.17	144.77
T3-06-BY-56	10/03/2010	72,598.60	R1254 12/22/2010	48.00	2.63
T3-06-BY-61	04/06/2011	296,650.28	R1766 05/18/2011	1,827.55	100.21
T3-06-BY-62	05/04/2011	99,868.04	R1849 06/13/2011	1,032.15	56.60
T3-06-BY-63	06/01/2011	101,543.76	R1963 07/13/2011	73.26	4.02
T3-06-BY-64	07/06/2011	129,245.32	R1A76 08/15/2011	2,095.73	114.92
T3-06-BY-65	08/03/2011	111,246.29	ACHC11258 09/19/2011	680.72	37.33
5054-T3-06-BY-6	08/31/2011	93,656.49	ACHC11270 09/29/2011	7,756.94	425.34
5054-T3-06-BY-6	10/05/2011	184,826.58	AVC110051 11/21/2011	4,282.05	234.80
Total:				\$66,081.31	\$4,285.40

Report Date: 01/13/2012

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IFMS Reconciliation Pending

Contract Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

SUPERFUND TECHNICAL ASSISTANCE RESPONSE TEAM (START)

Contractor Name: TETRA TECH EM INC.

EPA Contract Number: EPW05054

Delivery Order Information	<u>DO #</u>	<u>Start Date</u>	<u>End Date</u>
	3	09/26/2009	09/30/2011

Project Officer(s): JONES, SYLVIA

Dates of Service: From: 09/26/2009 To: 09/30/2011

Summary of Service: TECHNICAL ASSISTANT TEAM PROP-SUB(REDI)

Total Costs: \$70,366.71

<u>Voucher Number</u>	<u>Schedule Number</u>	<u>Rate Type</u>	<u>Annual Allocation Rate</u>
T3-06-BY-44	R0215	Final	0.068542
T3-06-BY-45	R0307	Final	0.068542
T3-06-BY-46	R0417	Final	0.068542
T3-06-BY-47	R0491	Final	0.068542
T3-06-BY-48	R0574	Final	0.068542
T3-06-BY-49	R0689	Final	0.068542
T3-06-BY-50	R0795	Final	0.068542
T3-06-BY-52	R0997	Final	0.068542
T3-06-BY-53	R0A81	Final	0.068542
T3-06-BY-54	R1066	Final	0.068542
T3-06-BY-55	R1154	Final	0.068542
T3-06-BY-56	R1254	Provisional	0.054834
T3-06-BY-61	R1766	Provisional	0.054834
T3-06-BY-62	R1849	Provisional	0.054834
T3-06-BY-63	R1963	Provisional	0.054834
T3-06-BY-64	R1A76	Provisional	0.054834
T3-06-BY-65	ACHC11258	Provisional	0.054834
5054-T3-06-BY-66	ACHC11270	Provisional	0.054834
5054-T3-06-BY-67	AVC110051	Provisional	0.054834

Report Date: 01/13/2012

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IFMS Reconciliation Pending

Financial Cost Summary for the Contract Lab Program

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

CONTRACT LAB PROGRAM (CLP) COSTS

Report Date: 01/13/2012

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IFMS Reconciliation Pending

Miscellaneous (MIS) Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

Miscellaneous (MIS) Costs

Total Costs: \$11,316.53

<u>Procurement Number</u>	<u>Voucher Number</u>	<u>Voucher Date</u>	<u>Voucher Amount</u>	<u>Treasury Schedule Number and Date</u>	<u>Site Amount</u>	<u>Description</u>
***CONTRACT NAME NOT FOUND ***						
EP094000116	2200018684	11/10/2010	0.00	L0349 11/10/2010	720.00	
EP094000116	2200018684	11/10/2010	0.00	L0351 11/10/2010	2,200.00	
EP104000059	2200016669	01/19/2011	0.00	L0991 01/19/2011	4,160.00	
EPW10033	A1	02/10/2011	1,294.38	R1497 03/08/2011	179.01	QUALITY ASSURANCE SU
EPW10033	A2	03/11/2011	6,026.89	R1615 04/06/2011	1,581.49	QUALITY ASSURANCE SU
EPW10033	A3	04/14/2011	7,381.19	R1726 05/11/2011	1,012.24	QUALITY ASSURANCE SU
EPW10033	A4	05/12/2011	7,532.14	R1827 06/07/2011	1,073.64	QUALITY ASSURANCE SU
EPW10033	A9	10/13/2011	4,712.13	AVC110037 11/09/2011	100.15	QUALITY ASSURANCE SU
F0004T00001	2200016669	05/16/2011	0.00	L2155 05/16/2011	290.00	
Vendor Total:					\$11,316.53	
Total Miscellaneous Costs:					\$11,316.53	

Report Date: 01/13/2012

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

<u>Fiscal Year</u>	<u>Direct Costs</u>	<u>Indirect Rate(%)</u>	<u>Indirect Costs</u>
2010	50,089.59	40.97%	20,521.71
2011	35,955.91	40.97%	14,731.16
2012	7,467.76	40.97%	3,059.53
	<u>93,513.26</u>		
Total EPA Indirect Costs			<u>\$38,312.40</u>

Report Date: 01/13/2012

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

PAYROLL DIRECT COSTS

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
CERON, LEONARDO	2010	05	1,441.46	40.97%	590.57
			1,441.46		\$590.57
TURNER, NARDINA	2010	18	32.84	40.97%	13.45
		21	16.37	40.97%	6.71
		23	16.78	40.97%	6.87
		24	16.41	40.97%	6.72
		26	16.40	40.97%	6.72
			98.80		\$40.47
Total Fiscal Year 2010 Payroll Direct Costs:			1,540.26		\$631.04

TRAVEL DIRECT COSTS

<u>Traveler/Vendor Name</u>	<u>Travel Number</u>	<u>Treasury Schedule Date</u>	<u>Travel Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
BANK ONE	0Q1DOS	12/23/2009	372.36	40.97%	152.56
			372.36		\$152.56
Total Fiscal Year 2010 Travel Direct Costs:			372.36		\$152.56

OTHER DIRECT COSTS

<u>Contract, IAG, SCA, Misc.NO</u>	<u>Voucher Number</u>	<u>Treasury Schedule Date</u>	<u>Site Amount</u>	<u>Annual/SMO Allocation Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
OR0429NTSA	044542	07/08/2010	1,550.00	0.00	40.97%	635.04
			1,550.00	0.00		\$635.04
EPW05054	T3-06-BY-44	12/14/2009	1,322.09	90.62	40.97%	578.79
	T3-06-BY-45	01/12/2010	7,589.25	520.18	40.97%	3,322.43

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

OTHER DIRECT COSTS

<u>Contract, IAG, SCA, Misc.NO</u>	<u>Voucher Number</u>	<u>Treasury Schedule Date</u>	<u>Site Amount</u>	<u>Annual/SMO Allocation Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
EPW05054	T3-06-BY-46	02/17/2010	316.84	21.72	40.97%	138.71
			20,974.67	1,437.65	40.97%	9,182.33
	T3-06-BY-47	03/16/2010	8,069.97	553.13	40.97%	3,532.88
	T3-06-BY-48	04/09/2010	1,492.65	102.31	40.97%	653.46
	T3-06-BY-49	05/14/2010	1,538.67	105.46	40.97%	673.60
	T3-06-BY-50	06/18/2010	1,014.21	69.52	40.97%	444.00
	T3-06-BY-52	08/19/2010	614.20	42.10	40.97%	268.89
	T3-06-BY-53	09/14/2010	703.51	48.22	40.97%	307.98
			43,636.06	2,990.91		\$19,103.07

Total Fiscal Year 2010 Other Direct Costs:

45,186.06

2,990.91

\$19,738.11

Total Fiscal Year 2010:

50,089.59

\$20,521.71

PAYROLL DIRECT COSTS

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
FREDERICK, TIMOTHY A.	2011	26	549.99	40.97%	225.33
			549.99		\$225.33
HARPER, GREGORY	2011	25	1,336.22	40.97%	547.45
		26	1,145.35	40.97%	469.25
			2,481.57		\$1,016.70
JONES, SYLVIA K.	2011	18	15.42	40.97%	6.32
			15.42		\$6.32

Report Date: 01/13/2012

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

PAYROLL DIRECT COSTS

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
STILMAN, TERRY	2011	26	1,299.32	40.97%	532.33
			1,299.32		\$532.33
TURNER, NARDINA	2011	07	82.43	40.97%	33.77
		08	16.57	40.97%	6.79
		09	66.24	40.97%	27.14
		10	49.67	40.97%	20.35
		11	33.12	40.97%	13.57
		12	33.11	40.97%	13.57
		13	33.11	40.97%	13.57
		14	215.26	40.97%	88.19
		15	132.47	40.97%	54.27
		16	33.11	40.97%	13.57
		17	16.57	40.97%	6.79
		23	16.57	40.97%	6.79
		24	49.69	40.97%	20.36
		25	33.11	40.97%	13.57
		26	16.57	40.97%	6.79
			827.60		\$339.09
Total Fiscal Year 2011 Payroll Direct Costs:			5,173.90		\$2,119.77

TRAVEL DIRECT COSTS

<u>Traveler/Vendor Name</u>	<u>Travel Number</u>	<u>Treasury Schedule Date</u>	<u>Travel Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
HARPER, GREGORY	0RZ891	09/23/2011	170.24	40.97%	69.76
			170.24		\$69.76

Report Date: 01/13/2012

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

TRAVEL DIRECT COSTS

<u>Traveler/Vendor Name</u>	<u>Travel Number</u>	<u>Treasury Schedule Date</u>	<u>Travel Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
STILMAN, TERRY	0RSUGI	09/23/2011	172.50	40.97%	70.68
			172.50		\$70.68
Total Fiscal Year 2011 Travel Direct Costs:			342.74		\$140.44

OTHER DIRECT COSTS

<u>Contract, IAG, SCA, Misc.NO</u>	<u>Voucher Number</u>	<u>Treasury Schedule Date</u>	<u>Site Amount</u>	<u>Annual/SMO Allocation Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
EP094000116	2200018684	11/10/2010	720.00	0.00	40.97%	294.98
			2,200.00	0.00	40.97%	901.34
			2,920.00	0.00		\$1,196.32
EP104000059	2200016669	01/19/2011	4,160.00	0.00	40.97%	1,704.35
			4,160.00	0.00		\$1,704.35
EPW05054	T3-06-BY-54	10/21/2010	2,536.68	173.87	40.97%	1,110.51
	T3-06-BY-55	11/22/2010	2,112.17	144.77	40.97%	924.67
	T3-06-BY-56	12/22/2010	48.00	2.63	40.97%	20.74
	T3-06-BY-61	05/18/2011	1,827.55	100.21	40.97%	789.80
	T3-06-BY-62	06/13/2011	1,032.15	56.60	40.97%	446.06
	T3-06-BY-63	07/13/2011	73.26	4.02	40.97%	31.66
	T3-06-BY-64	08/15/2011	2,095.73	114.92	40.97%	905.70
	T3-06-BY-65	09/19/2011	680.72	37.33	40.97%	294.19
	5054-T3-06-BY-66	09/29/2011	7,756.94	425.34	40.97%	3,352.28
			18,163.20	1,059.69		\$7,875.61
EPW10033	A1	03/08/2011	179.01	0.00	40.97%	73.34
			179.01	0.00	40.97%	73.34
			-179.01	0.00	40.97%	-73.34

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

OTHER DIRECT COSTS

<u>Contract, IAG, SCA, Misc.NO</u>	<u>Voucher Number</u>	<u>Treasury Schedule Date</u>	<u>Site Amount</u>	<u>Annual/SMO Allocation Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
EPW10033	A2	04/06/2011	1,581.49	0.00	40.97%	647.94
			1,581.49	0.00	40.97%	647.94
			-1,581.49	0.00	40.97%	-647.94
	A3	05/11/2011	-1,012.24	0.00	40.97%	-414.71
			1,012.24	0.00	40.97%	414.71
			1,012.24	0.00	40.97%	414.71
	A4	06/07/2011	1,073.64	0.00	40.97%	439.87
			3,846.38	0.00		\$1,575.86
F0004T00001	2200016669	05/16/2011	290.00	0.00	40.97%	118.81
			290.00	0.00		\$118.81
Total Fiscal Year 2011 Other Direct Costs:			29,379.58	1,059.69		\$12,470.95
Total Fiscal Year 2011:			35,955.91			\$14,731.16

PAYROLL DIRECT COSTS

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
FREDERICK, TIMOTHY A.	2012	02	367.21	40.97%	150.45
			367.21		\$150.45
HARPER, GREGORY	2012	02	191.17	40.97%	78.32
		03	573.49	40.97%	234.96
		04	764.66	40.97%	313.28
		05	571.96	40.97%	234.33
		06	191.17	40.97%	78.32

Report Date: 01/13/2012

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IFMS Reconciliation Pending

EPA Indirect Costs

VERMICULITE EXFO SOUTHERN GAO13, HIGH POINT, NC SITE ID = B4 08

Costs from 10/01/1980 to 01/13/2012

PAYROLL DIRECT COSTS

<u>Employee Name</u>	<u>Fiscal Year</u>	<u>Pay Period</u>	<u>Payroll Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
HARPER, GREGORY	2012	07	191.10	40.97%	78.29
			2,483.55		\$1,017.50
Total Fiscal Year 2012 Payroll Direct Costs:			2,850.76		\$1,167.95

OTHER DIRECT COSTS

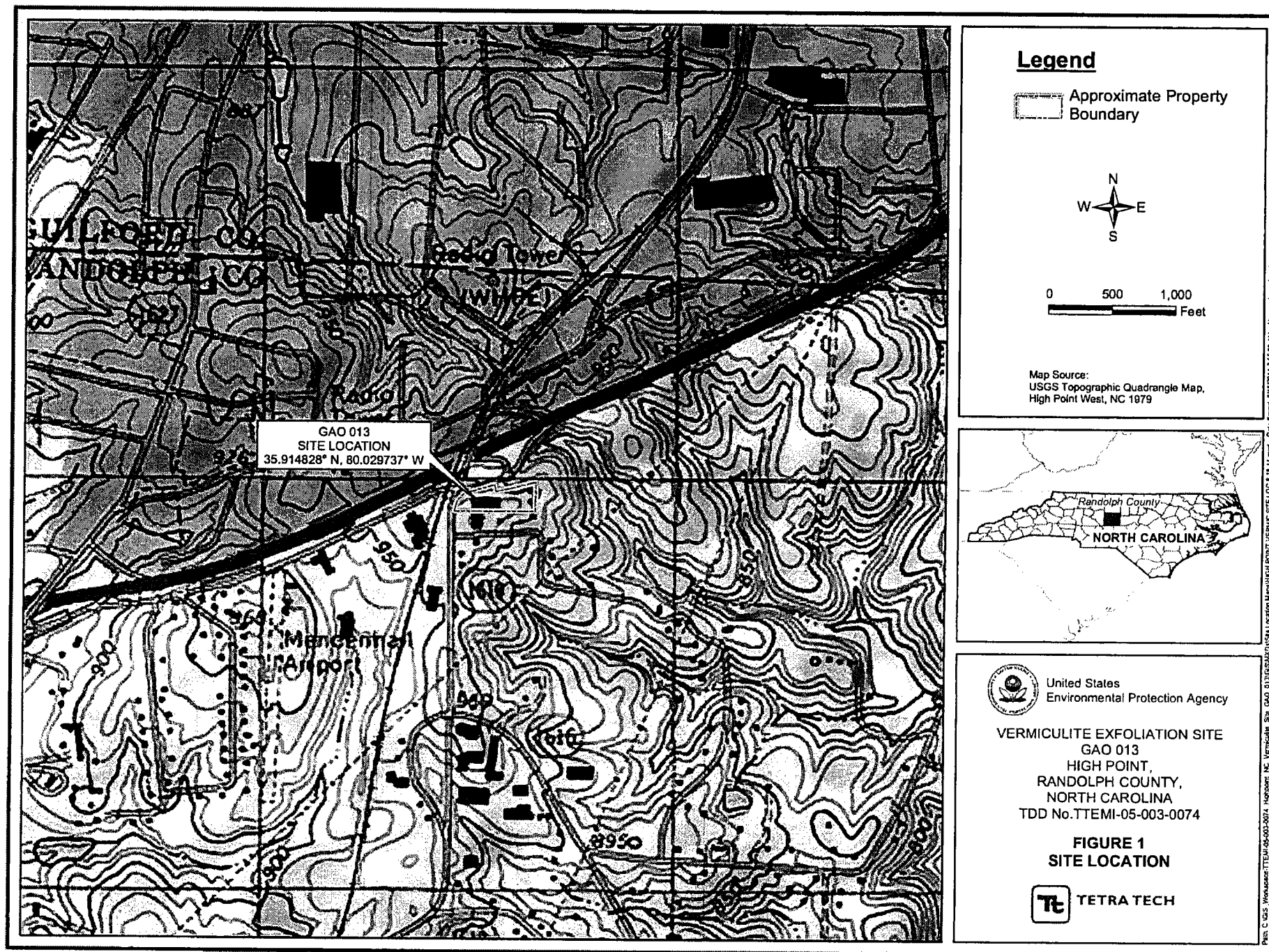
<u>Contract, IAG, SCA, Misc.NO</u>	<u>Voucher Number</u>	<u>Treasury Schedule Date</u>	<u>Site Amount</u>	<u>Annual/SMO Allocation Costs</u>	<u>Ind. Rate (%)</u>	<u>Indirect Costs</u>
EPW05054	5054-T3-06-BY-67	11/21/2011	4,282.05	234.80	40.97%	1,850.55
			4,282.05	234.80		\$1,850.55
EPW10033	A9	11/09/2011	100.15	0.00	40.97%	41.03
			100.15	0.00		\$41.03
Total Fiscal Year 2012 Other Direct Costs:			4,382.20	234.80		\$1,891.58
Total Fiscal Year 2012:			7,467.76			\$3,059.53

Total EPA Indirect Costs

\$38,312.40

Appendix C

Map of Site



**FIGURE 2
SITE LAYOUT**